

The client

Our client is an established European manufacturer of **speciality polyols, glycols and polyolefin-based materials for use in technically demanding and often niche applications**. Polyolefins (POs) are versatile plastics with good physical and chemical properties (e.g. lightweight, transparent, mechanical, flexibility and weather resistance), and as such are used in a wide variety of industries. Polyols and glycols are intermediates used for the manufacture of materials such as polyurethane (e.g. for adhesive or foams). The client's materials are considered specialised grades (not commodity materials) and are often used in emerging markets and for new applications; they are also supported by excellent customer service. However, these materials are now required to provide enhanced performance to justify their continuing use and increasingly require a simplified route to recycling and potential reuse.

The search

The client therefore wishes to provide step-change functionality in the **manufacture of specific polyols and polyolefin materials by simplifying the creation, manufacturing and end of life processing**, in addition to ways to **differentiate their materials providing enhanced material performance** for their customers. This could include enabling use of these plastic materials in applications previously not covered (i.e. replacing wood / metal / concrete / glass). Polymers of interest include:

- **Polyolefin-based (PO) materials**
 - **Ethylene vinyl acetate (EVA) and Ethylene butyl acrylate (EBA)**
 - **Polyethylene – high and low density (HDPE and LDPE/LLDPE)**
 - **Polypropylene (PP) copolymers**
- **Polyol- / Glycol- based materials**

They are therefore seeking the following to apply to the above polymers:

<i>Material properties:</i>	<i>Technologies to:</i>
<ul style="list-style-type: none">▪ Fire retardancy (removing inorganic additives)▪ Biodegradability▪ Recyclability▪ Enhanced barrier properties (industrial and packaging)▪ Oleophobicity▪ Improved longevity of product (e.g. self-healing)	<ul style="list-style-type: none">▪ Enable function with minimal additive use – e.g. modify inherent properties instead of relying solely on additives▪ Improve the end-of-life, recyclability and eventual reuse of the material – e.g. identification / tracking of material and source and enable a circular economy▪ Enable / improve chemical and mechanical recycling processes to allow separation of ink, contaminants, additives▪ Enable new applications, e.g. Plastronics, renewables▪ Enable production of polyols with alternative raw materials

Each opportunity should meet the following criteria:-

- Be proven to TRL 4 or above (i.e. already demonstrated) or able to reach the market within 3 years
- Good IP or at least sufficient to provide protection for the client's key markets
- Be available in one or more of the following markets - **Construction/Building use; Automotive and Transportation; Food and Healthcare; Sustainable materials**

What the client can offer

The client company is well known for its ability to collaborate with customers, responding quickly to market needs to provide solutions that are at the forefront of industry and regulatory requirements. They are also able to invest in product development and assist in scaling up suitable technology-led opportunities, providing a quicker time to market for early stage companies, or those exploring new markets for an existing product. The company has excellent routes to market through existing customers and their own extensive sales and distribution network, ensuring valuable revenue streams for growing companies. They are interested in all forms of collaboration, including: licensing; distribution; joint development; investment and acquisition opportunities. Please send preliminary information on any proposed opportunity to – Diane Kolonko via diane@strategicallies.co.uk